



Indiana Department of Environmental Management
Office of Water Quality
Wetlands Section

Publication Date:

June 10, 2010

Closing Date:

June 30, 2010

IDEM ID Number:

2010-195-57-BCB-A

Corps of Engineers ID Number:

LRE-2008-00382-157

PUBLIC NOTICE

To all interested parties: This letter shall serve as a formal notice of the receipt of an application for **Section 401 Water Quality Certification** by the Indiana Department of Environmental Management (IDEM). The purpose of the notice is to inform the public of active applications submitted for water quality certification under Section 401 of the Clean Water Act (33 U.S.C. § 1341) and to solicit comments and information on any impacts to water quality related to the proposed project. IDEM will evaluate whether the project complies with Indiana's water quality standards as set forth at 327 IAC 2.

1. Applicant: Mr. David Preston
P.O. Box 458
Kendallville, IN 46755

2. Agent: Same as Applicant

3. Project location: SE ¼ of Section 25, Township 35 North, Range 10 East, Kendallville U.S.G.S. Quad, Noble County.
One mile west of Kendallville, travel north on CR 600 E, approximately 0.3 miles on the west side of CR 600 E.

4. Affected waterbody: Emergent, Scrub-Shrub and Forested Jurisdictional Wetland (St. Joseph (MI) 8-Digit Hydrologic Unit Code, 04050001)

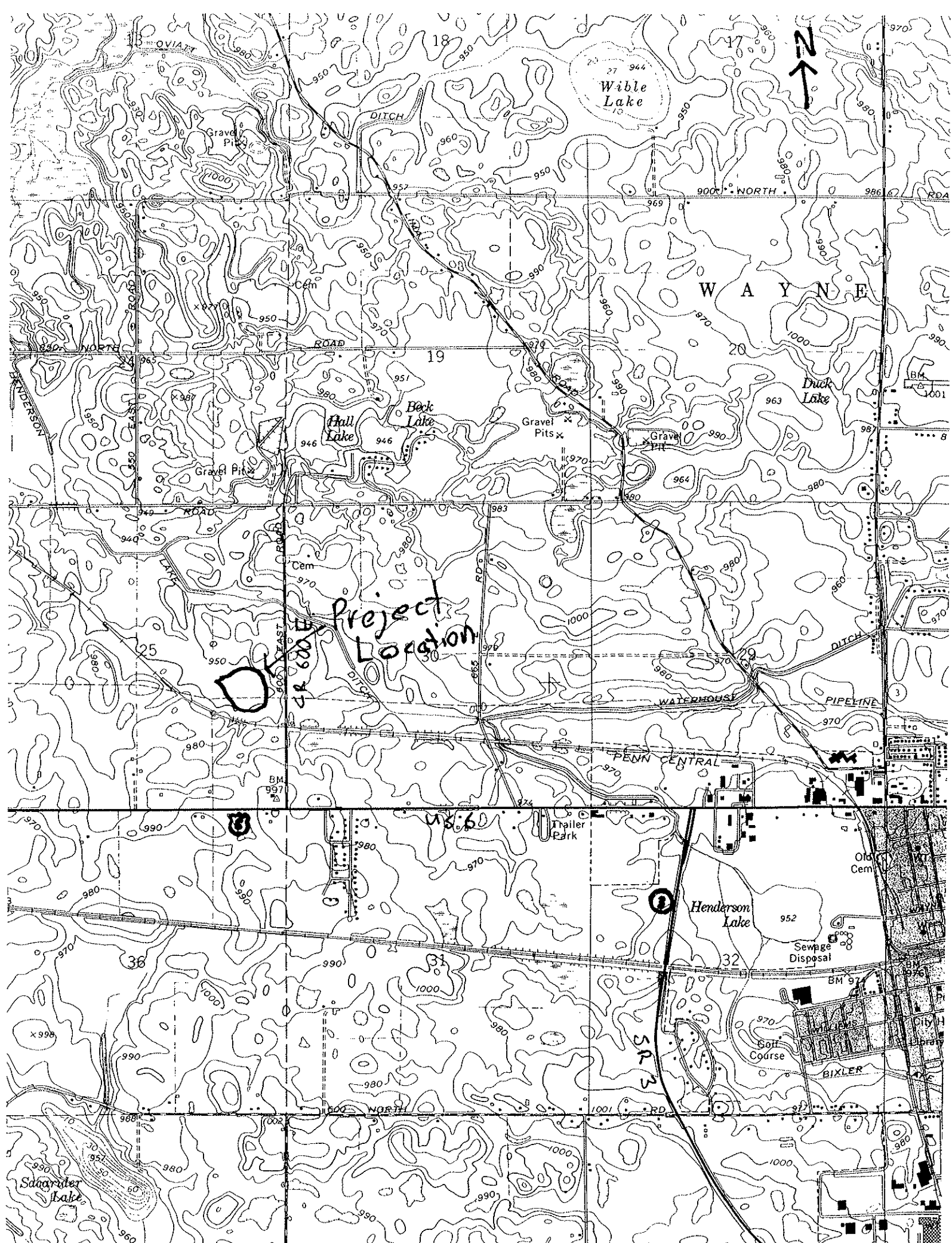
5. Project Description: The applicant proposes to place approximately 53.6 cubic yards (0.04 acre) of clean earthen fill into a ditched that has formed within a forested wetland due to a tile and riser that was installed downstream. The project will involve tile removal and the construction of a low level ditch plug with a 4' by 8" inline stop-log water-control structure, and 20' wide earthen emergency spillway. The top of the berm will be at an elevation of 101.0', the control elevation will be at 100.0', and the emergency spillway elevation will be 100.5'. Upon removal of the artificial drainage and installation of the control structure, approximately 10.5 acres of forested, scrub-shrub and emergent wetland will be secondarily impacted by partial inundation. The applicant will mitigate for partial loss of the forested component by planting 10 clusters of button bush at a 50 stem density, and managing the site to reduce the current dominance of invasive reed canary grass (*Phalaris arundinacea*). The purpose of the project is to restore natural hydrology that has been drained from this basin. For additional plans and information, please visit the IDEM Public Notice Webpage at <http://www.in.gov/idem/6397.htm>

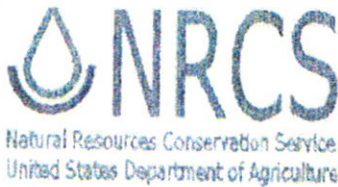
Comment period: Any person or entity who wishes to submit comments or information relevant to the aforementioned project may do so by the closing date noted above. Only comments or information related to water quality or potential impacts of the project on water quality can be considered by IDEM in the water quality certification review process.

Public Hearing: Any person may submit a written request that a public hearing be held to consider issues related to water quality in connection with the project detailed in this notice. The request for a hearing should be submitted within the comment period to be considered timely. The request should also state the reason for the public hearing as specifically as possible to assist IDEM in determining whether a public hearing is warranted.

Questions? Additional information may be obtained from Mr. Brad Baldwin, Project Manager, at 317-234-5647. Please address all correspondence to the project manager and reference the IDEM project identification number listed on this notice. Indicate if you wish to receive a copy of IDEM's final decision. Written comments and inquiries may be forwarded to -

Indiana Department of Environmental Management
100 North Senate Avenue
MC65-42 WQS IGCN 1255
Indianapolis, Indiana 46204-2251
FAX: 317/232-8406



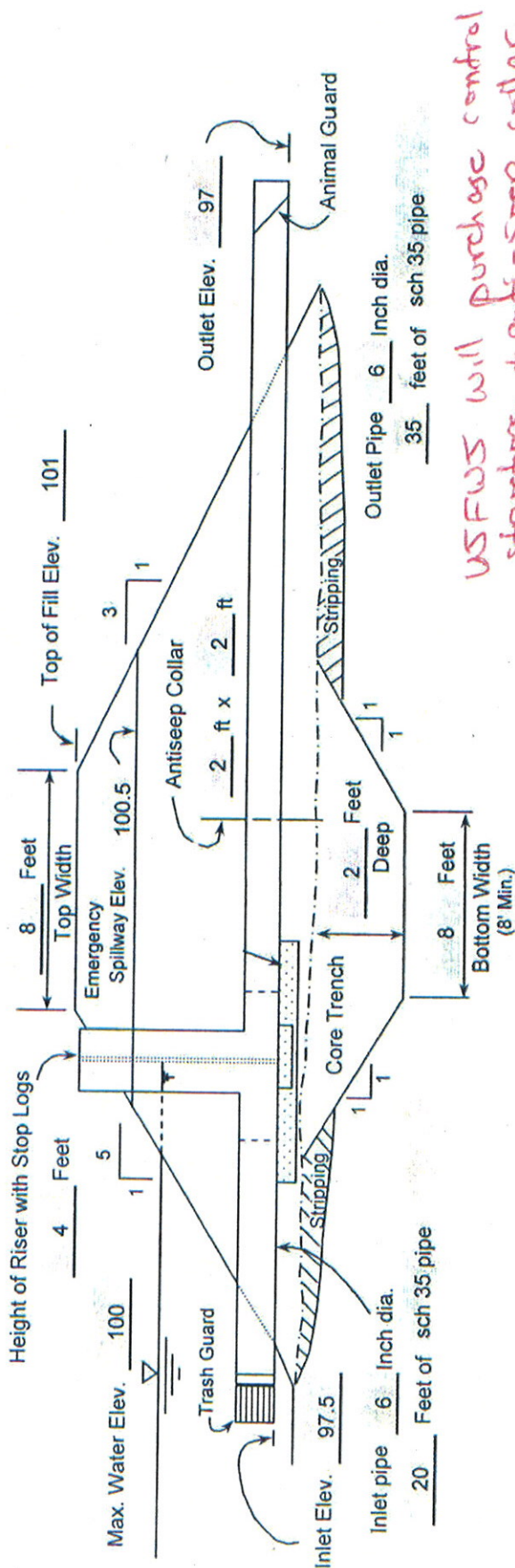


WATER CONTROL STRUCTURE

Landuser Preston, David
 Location Noble Co.
County SWCD, INDIANA
 Section 25 T 35 N R 10 E

Designed _____
 Drawn _____
 Checked _____
 Approved _____
 Title _____

Date _____
 Sheet _____ of _____



SECTION THRU WATER CONTROL STRUCTURE

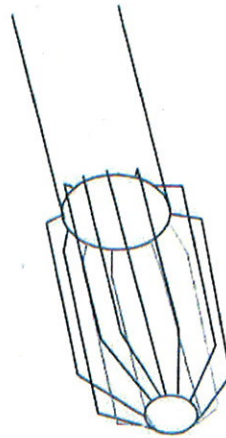
CONSTRUCTION NOTES:

1. The foundation area of the earthfill shall be cleared of vegetation. Topsoil shall be stripped and stockpiled. Spread the stockpiled topsoil in a 6 inch min layer over the completed earth embankment.
2. A core trench shall be excavated along the centerline of the earthfill to a depth to remove sediment layer and other permeable material in the foundation area.
3. Construct the earthfill by placing earthfill in 6 inch layers. Compact each layer with the earthmoving equipment by making a min of 4 to 6 passes over the entire surface. Backfill around the pipe and riser shall be placed in 4 inch layer and compacted with manually operated equipment. Heavy equipment shall not be operated around the pipe and structure until 2 feet of earthfill is placed over and around the pipe and riser.
4. The water control riser shall be an Inline Water Level Control Structure™ manufactured by Agri-Drain Corp, Adair, Iowa or equivalent.
5. Seed and mulch the completed earthfill according to the NRCS specifications.

TRASH GUARD DETAILS

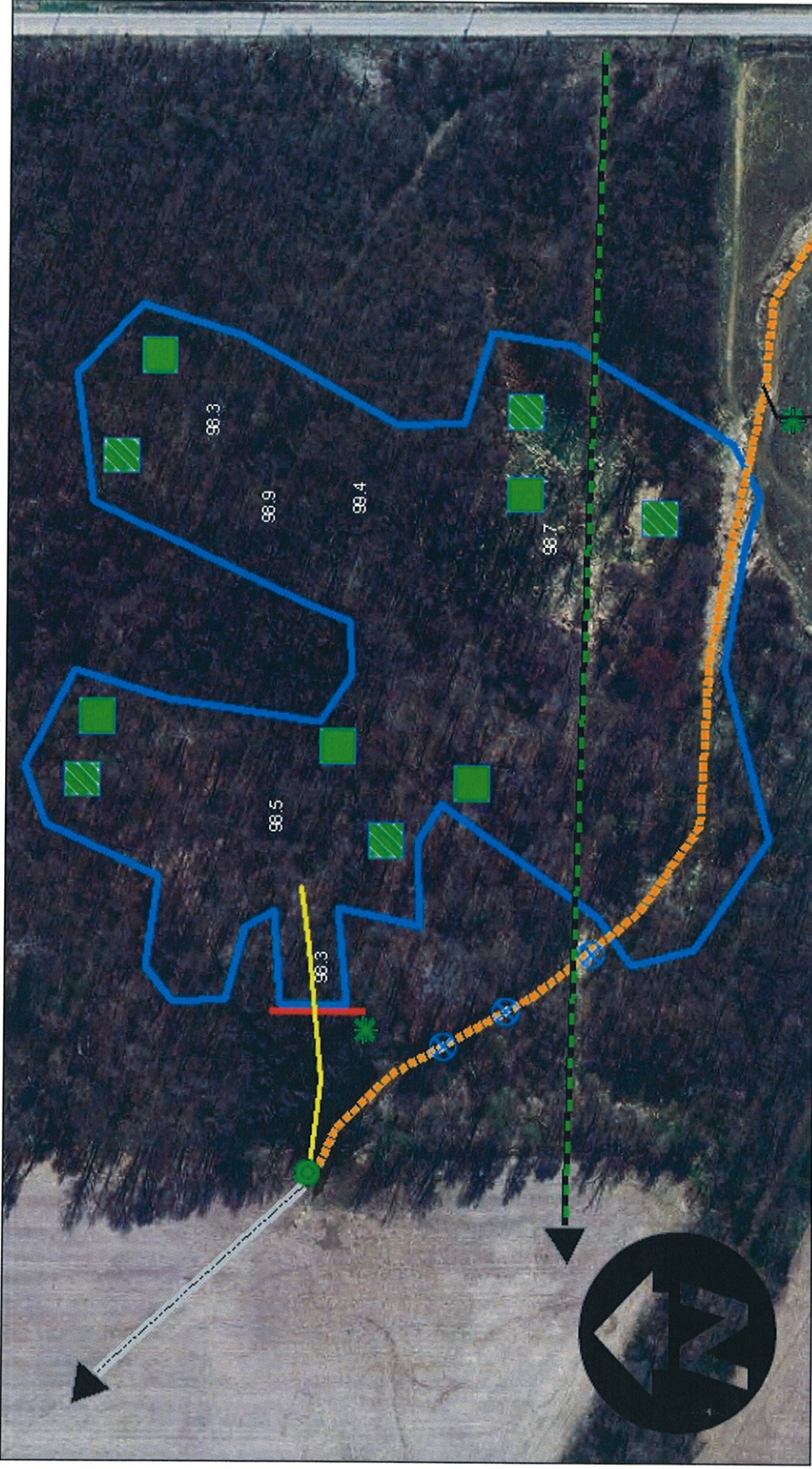
Bar Guard keeps intakes from plugging with crop residue or any other type of trash. Construction of 1/4" steel (5/16" steel on 15" and larger sizes) for durability. Yellow powder coated finish resists corrosion and is brighter for better visibility.

USE THIS TYPE OF TRASH GUARD OR EQUIV. TO PREVENT THE INLET FROM PLUGGING.



Project Name: Preston Wetland Restoration
Date Prepared: 04/27/2010

Legal Description: Noble Co.; T 35N; R 10E; Sec 25; NE 1/4 of the SE 1/4



Legend

- County Tile
- Tile Blowouts
- Norco Pipe Line
- Tile Riser
- Private Tile
- Open Ditch
- Ditch Plug - 100'
- Wetland - 10.54 Ac - Full Pool @ 100.0
- Permanent Benchmark - Retaining Wall @ 112.7
- Benchmark - 2 x 2 stake @ 102.0
- Buttonbush Planting (Monitored)
- Buttonbush Planting (Unmonitored)

Attachment A

Activity of Description:

The project will involve tile removal and construction of a low level ditch plug with a 4'x 8" inline stoplog water-control structure and 20 foot wide earthen emergency spillway to maintain the above mentioned shallow marsh conditions on the site. The top of the berm, at elevation of 101.0, will be approximately 100', resulting in approximately 30' on hydric soil (Rensselaer loam). Fill required for the berm in the wetland area will require 53.6 cubic yards of material and will impact approximately 0.04 acres (1,500 sq. ft.) of wetland habitat in the basin. The water control structure will use stoplogs to maintain a full pool level of 100.0 with an emergency spillway set elevation at 100.5. Structure will be maintained by the landowner to prevent obstructions and proper water levels. Water level manipulation will only occur as necessary to maintain conditions required under the mitigation plan based on recommendations of the US Fish and Wildlife Service or in the case of emergency access required by the NORCO Pipeline LLC, a subsidiary of Buckeye Partners LP. The soil type within the majority of the area to be impacted is Houghton muck, Riddles sandy loam, and Rensselaer loam. After removal of artificial drainage, approximately 10.5 acres will be secondarily impacted through inundation and restored to historical conditions of palustrine-emergent wetland. This includes 2.0 acres of emergent wetland, 3.5 acres of scrub shrub wetland, and 5.0 acres of forested wetland. Following construction, disturbed areas will be seeded with native herbaceous vegetation with a cover crop and mulched with straw. The preferred time frame for construction of the proposed project is summer 2010.

Mitigation Plan for Preston Wetland Restoration, Noble Co. IN

I. Purpose

The goal of the proposed project is to restore the natural hydrology of a 10.5 acre ditch and tile drained wetland basin for the principal benefit of migratory birds. Natural hydrology of the Histosol and Mollisol soil types within this project area and the landscape position of the site indicate that shallow marsh conditions previously existed prior to drainage, with pockets of open, shallow water mixed with herbaceous, shrubby, and larger woody growth. Furthermore, restoration of the hydrology will help reduce the current dominance of non-native reed canary grass (*Phalaris arundinaceae*), allowing for a more complete restoration of a diverse hemi-marsh and sedge meadow community. In addition to greatly improving habitat for migratory birds like the wood duck (*Aix sponsa*), great blue heron (*Ardea herodias*), and the state-listed red-headed woodpecker (*Melanerpes erythrocephalus*); the restoration of hydrology will also provide more suitable breeding habitat for amphibians such as Spring Peeper (*Pseudacris crucifer*), Chorus Frogs (*Pseudacris triseriata*), and State-listed Northern Leopard Frog (*Rana pipiens*). Such efforts may also benefit the Federally listed Indiana Bat (*Myotis sodalis*) and the State listed Blandings (*Emydoidea blandingii*) and Spotted (*Clemmys guttata*) Turtles.

In order to conduct the restoration, the project design will require construction of a ditch plug with an adequate sized water control structure and emergency rock spillway. The water control structure will be necessary to accommodate the future access needs of Norco Pipeline, LLC, a subsidiary of Buckeye Partners, L.P.

Overall, success of this wetland restoration will provide breeding, loafing and foraging habitat for a variety of wetland wildlife including waterfowl, wading birds, songbirds, mammals, reptiles and amphibians. It will also reduce the dominance of non-native, invasive species and provide improved water quality conditions.

II. Mitigation Goals and Objectives

- A. This site is currently drained by a ditch and adjacent private tile. As a result, the restoration will require 53.6 cubic yards of fill and impact approximately 0.04 acres of wetland. The current drainage exacerbates environmental pollution by allowing the direct flow of sediment, nutrients and pesticides into downstream surface waters. Hydrology is currently very flashy due to the artificial drainage, and limits opportunities for nitrate and other nutrient removal. Furthermore, based on past experience, the initial loss of various woody and herbaceous species due to sustained flooding will create open water. Although, the return of natural hydrology and emergent vegetation to the wetland should collectively increase filtration capabilities and reduce further degradation from increased pollution.
- B. The restoration of natural hydrology and planting of native shrubs will compensate for the loss of woody component and will allow the historically natural wetland community to slowly filter and remove these pollutants, improving the local water quality. Additionally, approximately 2 acres of the wetland basin has been invaded by silver maple (*Acer saccharinum*) due to the years of low, flashy hydrologic conditions created by artificial drainage. Recently many of these soft maples were harvested by the landowner, since he felt these would have not been present under natural hydrological conditions. Given this situation, it is even more likely such reduction in this habitat component will allow for better re-colonization of site-appropriate emergent wetland shrub or sedge-meadow vegetation, after the combination of water inundation and herbicide measures reduce the current dominance of non-native reed

canary grass. All herbicide measures will be completed with an aquatic approved glyphosate based herbicide for the purpose of controlling non-native reed canary grass. Due to terrain issues, we expect the inundation of water to reduce the invasive substantially. Therefore, the frequency and timing of the first herbicide will depend on the overall amount of time it takes the wetland to reach full pool. It is our expectation; the timing of the first herbicide application will be completed in the first fall after reaching full pool. Frequency may vary depending on the development of peripheral vegetation and application effectiveness. Also, most noteworthy, we will avoid those areas of native plants as they begin to establish larger more diverse and functional communities. As the native peripheral vegetation develops into a more native community, the marsh-like conditions of clean shallow water over organic dominated substrate will provide more favorable conditions for state-listed species like the Blandings and Spotted Turtle. In addition, the restoration may serve as summer foraging habitat for the Federally endangered Indiana Bat.

- C. The overall impact of this restoration will be the improved wildlife habitat, water quality, and native plant community.

III. Baseline Information for Impact and Proposed Mitigation Sites

- A. The location and physical attributes of the site have been described in previously submitted applications. Descriptions include the soil types present on-site, the proposed hydrology of the restored basin and the results of a base line vegetation survey. Please refer to such correspondence for details.
- B. As previously described, this site was historically drained by a private drain tile and open ditch. The site currently has little human use due to its degraded condition. Upon restoration the site will provide the aforementioned wildlife benefits and related human recreation opportunities. Please also see the mitigation benefits described in section II.B.
- C. Permitted wetland restorations with similar benefits have been conducted on the Bill LaSalle property in Steuben Co. IN and the Bill Martin property in Noble Co. IN. In both instances, drained basins had been invaded by reed canary grass, which was subsequently suppressed and replaced by native vegetation when drainage was removed.

IV. Mitigation Site Selection and Justification

- A. This site was chosen because of the landowner's desire to restore the degraded basin on his property and the U.S. Fish and Wildlife Service (USFWS) belief that a restoration would likely benefit a variety of Federal Trust resources, including migratory songbirds, waterfowl, and wading birds. In addition, the restoration may also benefit the Federally endangered Indiana Bat, as well as State endangered species like the Blandings and Spotted Turtle. Historical records exist for both species of turtles approximately 3 – 4 miles from the restoration site.
- B. There is an extremely high likelihood that this restoration will restore the original hydrological conditions to the project area. The USFWS has conducted several other similar restorations with success in reducing dominance of invasive species and improving habitat for wetland-dependent wildlife. No other land uses are appropriate for this site.

V. Mitigation Work Plan

- A. This project is located in Noble County, Indiana. T 35 N, R 10 E, Section 25
- B. And C. The restoration of natural hydrology will improve the functions and values of the existing wetland basin. Please reference the construction plan and supporting documents previously submitted for information regarding the restoration of

hydrology. The overall goal will be to maintain at least 40% vegetative cover. Current non-native reed canary grass will be controlled through a combination of restored hydrology and chemical treatments performed by the landowner. Chemical treatments will be applied prior to hydrology restoration using approved herbicides for wetland environments. In addition to natural regeneration, baseline species will be supplemented with 10 buttonbush (*Cephalanthus occidentalis*) clumps planted at a density of 50 stems per clump. Each clump will be configured in a 40' x 40' square, with a combined acreage of all clumps totaling approximately 0.4 acres. Plantings will be conducted during the first two years of the project, depending upon plant material availability. The landowner has already planted a total of 100 buttonbush and 100 silky dogwood shrubs in several clumps, based on the proposed water elevations at full pool.

VI. Performance Standards

- A. By completing this restoration, we hope to obtain hemi-marsh conditions. Typically hemi-marsh conditions focus on a 50:50 ratio of aquatic vegetation to water. Historically, these soils types had increased durations of ponding and saturation during years of increased precipitation. However, current drainage promotes ideal growing conditions for the invasive reed canary grass. This species covers approximately 60% of the entire basin. Upon proposed inundation and herbicide control measures, we expect to reduce this dominance by 50%, given the difficulty in eradicating this troublesome species already established in the mitigated basin. As we have mentioned 30% coverage will be acceptable, though a lesser amount will be strived for to achieve the greater wetland values. Currently, no other invasive plant species predominate. Hybrid cattails (*Typha x glauca*), Purple Loosestrife (*Lythrum salicaria*), Common Reed (*Phragmites australis*), Eurasian water milfoil (*Myriophyllum spicatum*) and other invasive plants are not currently present, however it is unknown if a viable seed source exists. It is our expectation that plant diversity, documented in the baseline survey, will be maintained or increase with the expected change in water depths. Once the site fully develops the ideal hemi-marsh conditions, exhibiting approximately a 50:50 mix of open water areas to emergent vegetation, we expect at least 70% of the vegetative area will be native plants. For buttonbush plantings, we expect a minimum of 50% survival in the planted clumps with at least 200 live stems per acre at the end of the monitoring period. Based on survival, additional buttonbush may be planted on the perimeter of the wetland. As the water recedes during drying periods, the exposed mudflats will colonize with annual wetland vegetation such as *Polygonum* and *Alisma* species. Furthermore, extreme drought may cause the entire basin to be colonized with annuals and the established perennial emergents. These variable hydrologic conditions due to natural variations in precipitation should enhance both the vegetative community and wildlife habitat.
- B. The impact and mitigation sites are the same. See section II parts A and B for detailed impacts.
- C. Soil types will not change on site. It is expected that the annual saturation period of the aforementioned soils will be extended as natural hydrology returns. Full pool water levels, as described in the project design, will be highest in the late winter and early spring when rainfall levels exceed evaporation rates. Water levels are expected to fluctuate through the spring and summer months as weather conditions change. As previously described, the existing vegetation is expected to change from a sparsely forested overstory with an emergent understory dominated by reed canary grass to a shallow marsh wetland community with a sedge-meadow fringe and pockets of scrub-shrub.

VII. Site Protection and Maintenance

- A.** The site is owned by Mr. David Preston of Kendallville, IN. The USFWS, through a 10-year voluntary agreement under the Partners for Fish and Wildlife (PFW) Program, will provide cost-share and technical assistance for the restoration of the wetland.
- B.** Prior to restoration, the landowner will sign a PFW Landowner Agreement. This agreement will require that the landowner agree to maintain the project and to protect the wetland development from destructive activities for at least ten years. Since this is not a restriction on the deed and does not transfer with a change in ownership, the landowner has obligations to the USFWS for only the 10 year agreement period. However, based on past experience, projects completed through the USFWS' PFW Program are likely to remain in place for much longer than the agreed upon contract length.
- C.** Maintenance of the constructed ditch plug and primary spillway will occur when conditions warrant. Inspections will be conducted annually or more frequently to prevent damage from muskrats and sheet erosion. The effective lifespan on typical ditch plugs of similar design varies considerably with the degree of maintenance required, but often last much longer than 10 years.

VIII. Monitoring Plan

- A.** Upon completion of the earth work, plantings, and establishment of the full pool water level, the site will be observed for multiple growing seasons to evaluate the establishment of native vegetative cover and buttonbush clumps. Observations will be made annually for years 1 – 3 by the landowner, with assistance from USFWS, and biannually by the landowner for years 4 – 10. Any supplemental planting needed to reach 50:50 hemi-marsh conditions will be funded by the landowner, with the probable assistance of the USFWS – depending upon available funding.
- B.** Buttonbush survival will be documented by the landowner in at least 5 of the 10 buttonbush clump sites (see map) to evaluate success criteria (see Section VI.A). It is expected that there will be a noted decrease in the invasive plant species and increase in wetland dependent wildlife following the hydrologic restoration. Due to private and USFWS funding constraints, the mitigation levels mentioned in Section V.B&C will be followed.

IX. Adaptive Management Plan

- A.** The USFWS Indiana Private Lands Office will be responsible for the design and construction of the project. The USFWS will also be providing technical assistance on various aspects of the restoration and management of the wetland. The landowner is responsible for insuring that the long-term requirements of the mitigation plan are carried out and adhered to the satisfaction of the COE.
- B.** Although the USFWS landowner agreement is binding to only the landowner, in the event that the landowner were to sell the property in the future, the USFWS would make an effort to contact the new landowner and encourage them to continue to participate in the active protection and management of this wetland for the 10 year contract length.

X. Financial Assurances

- A.** The USFWS Indiana Private Lands Office will be responsible for assuring proper construction of the wetland project according to the approved design. In cooperation with the landowner, both parties will assist in the monitoring process of the construction and biological response. If unsatisfactory biological conditions exist during the mitigation period, the landowner will be instructed to fully implement the

mitigation work plan mentioned in Section V.B&C. All costs including maintenance, replacement and repair of any structures, berms, or mitigation will be the responsibility of the landowner. The landowner will be eligible and encouraged to seek additional financial assistance, when available, for supplemental plantings or structure/berm repair through the USFWS PFW Program.

- B.** Since this project is restoring previously degraded wetland hydrology, the cost of mitigation is expected to be low. The USFWS and the landowner will cooperatively carry forth the plan for hydrologic restoration as determined in the USFWS Project Plan and Landowner Agreement. Financial assistance has been provided to the landowner to cover the initial restoration of the wetland hydrology, according to the previously provided wetland construction plan.

- C.** Schedule: Please see Section VIII.A. for the project schedule.